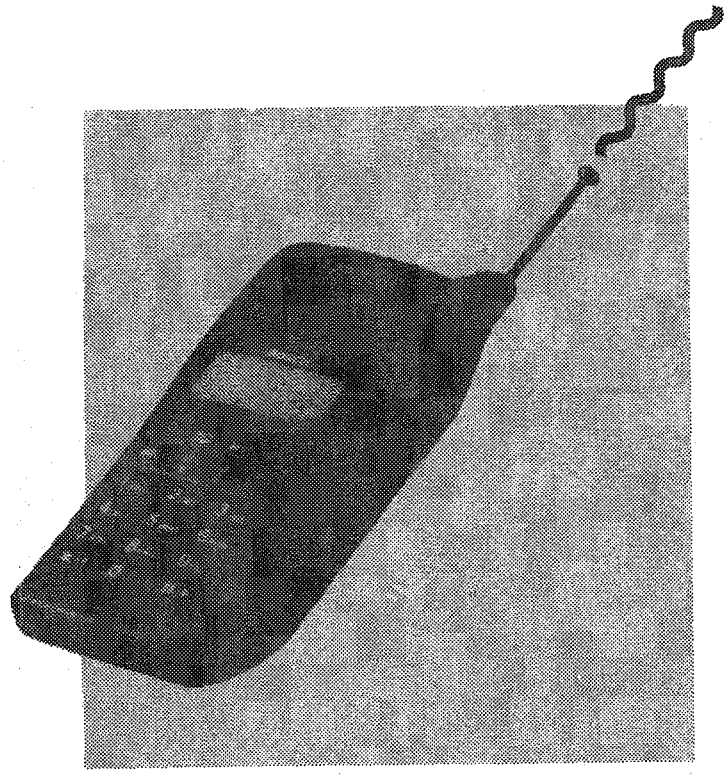
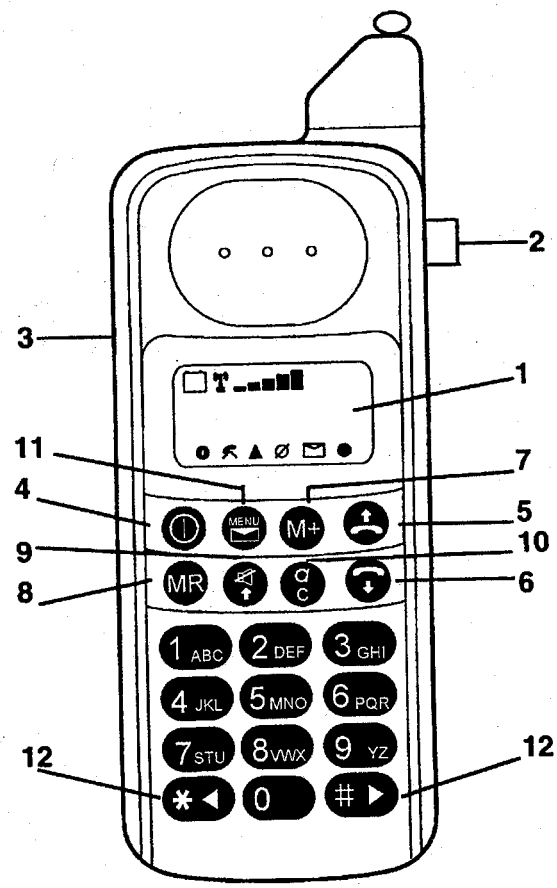
CarTel SC / CarTel SL



BOSCH

Bosch Telecom


2
3
1
11
7
4
5
9
10
8
6
12
12
MENU
M+
MR
1 ABC
2 DEF
3 GHI
4 JKL
5 MNO
6 PQR
7 STU
8 VWX
9 YZ
0

SIM Card Data

Subscriber number: _____

PIN Code * (4 to 8 digits): _____

Unblocking Code (8 digits): _____

Barring Password * (4 digits): _____

* Changeable

Press out and keep in a secure place

Telephone Data

Serial number: _____

Unlock Code * (3 digits): _____

Security Code ** (6 digits): _____

* Changeable, upon delivery = 1 2 3

** Changeable, upon delivery = 0 0 0 0 0 0

Press out and keep in a secure place

To Turn On

1. Insert SIM Card.
2. Turn on: ☞ ⏻
3. If prompted: ☞ PIN Code # ▶ & Unlock Code # ▶

To Make a Call

1. Check ∅ is off.
2. ☞ Telephone number (No dial tone).
3. ☞ 📞
4. To end the call: ☞ 📴

Quick User Guide

To Answer a Call:

To End a call:

To Recall a phone number from memory

By location number: location number

Emergency Call

Inform operator about your subscriber number, position and the type of emergency. Stay by the telephone.

Quick User Guide

SAFETY FIRST

GENERAL

The following provides advisory and cautionary instructions to users of GSM mobile stations regarding their own and third party safety.

ELECTRICAL SAFETY

This apparatus is intended for use when supplied with power from:

Battery Chargers:
7 692 930 664 (7 692 930 658 + 8 698 835 846)
7 692 930 663 (7 692 930 657 + 8 698 835 839)

Battery Savers:
8 694 432 435, 8 694 432 436

Car Kits/Vehicular Chargers:
8 697 028 551, 8 697 028 552,
8 697 028 553, 8 697 029 113,
8 697 029 114, 8 697 029 115.

Other usage will invalidate any approval given to this apparatus and may be dangerous.

SAFETY FIRST

AIRCRAFT SAFETY

Switch off your cellular telephone when in an aircraft. The use of cellular telephones in an aircraft may be dangerous to the operation of the aircraft, disrupt the cellular network and is illegal. Failure to observe this instruction may lead to suspension or denial of cellular telephone services to the offender, or legal action or both.

EXPLOSIVE ATMOSPHERES

- Users are advised not to use the equipment when at a refuelling point.

- Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots, chemical plants or where blasting operations are in progress.

ROAD SAFETY

- The use of the Alert device to operate a vehicle's lights or horn on public roads is not permitted.

- It is advised that a hand-held microphone or telephone handset should not be used by the driver while the vehicle is moving, except in an emergency. Speak only into a fixed, neck slung or clipped-on microphone when it would not distract your attention from the road.

SAFETY FIRST

USAGE INSIDE A VEHICLE

If operating a cellular telephone inside the vehicle without utilizing an external antenna, the functionality of inadequately shielded equipment (such as antilock braking and fuel injection systems, etc.) in your vehicle may be impaired.

Consult your vehicle owner's manual or ask your automobile dealer if you have questions about your vehicle.

MEDICAL ELECTRONICS

Operation of any radio transmitting equipment, including cellular telephones, may interfere with the functionality of inadequately shielded medical devices (such as pacemakers, hearing aids, etc.) Consult your physician or ask the manufacturer of the medical device if you have questions.

SAFETY FIRST

IMPORTANT

For the efficient and safe operation of your GSM Hand-Held Portable Cellular Telephone,

Read this information before use.

Your GSM hand-held portable cellular telephone is one of the most exciting and innovative electronic products ever developed. With it you can stay in contact with your office, your home, emergency services, and others, wherever service is provided.

GENERAL

Your cellular telephone utilizes the GSM standard for cellular technology. GSM is a newer radio frequency ("RF") technology than the current FM technology that has been used for radio communications for decades. The GSM standard has been established for use in the European Community and elsewhere.

Your cellular telephone is actually a low power radio transmitter and receiver. It sends out and receives radio frequency energy. When you use your cellular telephone, the cellular system handling your call controls both the radio frequency and the power level of your cellular telephone.

EXPOSURE TO RF ENERGY

There has been some public concern about possible health effects of using portable hand-held cellular telephones. Although research on health effects from RF energy has focused for many years on the current RF technology, scientists have begun research regarding newer radio technologies such as GSM. After existing research had been reviewed, and after compliance to all applicable safety standards had been tested, it has been concluded that the product is fit for use.

If you are concerned about exposure to RF energy there are things you can do to minimize exposure. Obviously, limiting the duration of your calls will reduce your exposure to RF energy. In addition, you can reduce RF exposure by operating your cellular telephone efficiently by following the below guidelines.

EFFICIENT CELLULAR TELEPHONE OPERATION

For your cellular telephone to operate at the lowest power level consistent with satisfactory call quality, you should:

- Extend The Antenna Fully.
  If your antenna is retractable, be sure the antenna is extended fully. Your cellular telephone operates efficiently with the antenna extended.

- Hold Your Cellular Telephone As You Would Any Other Telephone.

- Do Not Hold or Touch The Antenna When Your Cellular Telephone Is In Use.
  Holding the antenna affects call quality and may cause the cellular telephone to operate at a higher power level than otherwise needed.

ANTENNA CARE AND REPLACEMENT

- Do Not Use The Cellular Telephone With A Damaged Antenna.
  Electricity from an exposed metal inner conductor may cause a minor burn. Replace a damaged antenna immediately. Consult your manual to see if you may change the antenna yourself. If so, use only a manufacturer-approved antenna. Otherwise, take your cellular telephone to a qualified service centre.

- Use Only The Supplied Or Approved Antenna.
  Unauthorized antennas, modifications or attachments could damage your cellular telephone and substantially affect its efficient operation.

Following these guidelines will help assure the efficient and safe use of your cellular telephone.

This Cellular Telephone Complies With All Applicable "RF" Safety Standards

This cellular telephone meets the standards and recommendations for the protection of public exposure to "RF" electromagnetic energy established by governmental bodies and other qualified organizations, such as the following:

- **Verband Deutscher Elektroingenieure (VDE) DIN-0848**
- **Directives of the European Community, Directorate General V in Matters of Radio Frequency Electromagnetic Energy**
- **National Radiological Protection Board of the United Kingdom. GS-11, 1988.**
- **American National Standards Institute (ANSI)/IEEE. C95.1-1992**
- **National Council on Radiation Protection and Measurements (NCRP). Report 86**

RF SAFETY

MANUAL UPDATES

No user manual updates at this time.

MANUAL UPDATES

ESSENTIAL INFORMATION 1

INTRODUCTION 7
Telephone Overview 8
Display 8
Volume Keys 10
SIM Card Release 10
Keypad 10

BASIC OPERATION 12
Inserting the SIM Card 13
Switch Phone On/Off 14
Entering the PIN Code 15
Making Calls 16
Dialling Errors 16
Ending Calls 16
Receiving Calls 16
Call in Absence 17
Automatic Redial 17
International Calls 18
GSM Emergency Calls 18
Storing Telephone Nos. into Memory 19
Recalling Telephone Nos. from Memory 21
Speed Dial 22
Clearing Numbers Stored in Memory 22

CONTENTS

ADVANCED INFORMATION 2

FEATURE MENUS 23

STATUS REVIEW 25

MASTER RESET 26

MASTER CLEAR 27

SYSTEM REGISTRATION 28
- Automatic Roaming 28
- Manual Roaming 30
- Displaying Preferred Operator List 31
- Changing Preferred Operator List 32

MEMORY FEATURES 33
- Notepad 33
- Recall Last Number 'Called' 33
- Memory Linking 34

INTERFACE FEATURES 34
- Electronic Lock 34
- Automatic Lock 35
- Changing the Unlock Code 35
- Ringer On/Off 35
- Keypad Tones On/Off 36
- Tone Signalling Features 36
- Notepad Tones On/Off 36
- Pauses in Memory 37
- DTMF Signalling 38
- Long Tone DTMF 39
- Language Selection 39
- PIN Code Enable/Disable 40
- Changing the PIN Code 41
- Unblocking SIM Card 42
- Changing the Security Code 43

ADVANCED INFORMATION 2

CALL MONITORING 43
One Minute Audible Call Timer 43
Programmable Audible Call Timer 44
Visual Call Timers & Meters 45
Displaying Call Timers 46
Displaying Call Meters 46
Programming Rates 47
Automatic Monitor Displays 47

CALL RESTRICTIONS 48
Restrict Keypad Dialling 48
Restrict Memory Access 49
Restrict Incoming Calls 49
Restrict Phone Number Length 50
Full Service 50

CALL BARRING 51
Activating Call Barring 52
Cancelling Call Barring 52
Call Barring Status 53
Changing Call Barring Password 53
Special Call Barring Messages 54

CALL FORWARDING 54
Activating Call Forwarding 55
Cancelling Call Forwarding 56
Call Forwarding Status 56
Special Call Forwarding Messages 57

CONTENTS

ADVANCED INFORMATION 2

SHORT MESSAGE SERVICE (SMS) 58
- Automatic Cell Broadcast 58
- Point to Point Messages 60
- Receiving Point to Point Messages 60
- Storage of Point to Point Messages 61
- Reading Point to Point Messages 61
- Clearing Messages From Memory 62
- Embedded Callback Numbers 63
- Short Message Alert Tone 63

CALL WAITING AND CALL HOLDING 64
- Call Waiting 64
- Call Holding 65
- Call Hold and Waiting Combinations 65
- Call Hold and Making New calls 68
- Call Holding and Call Waiting Messages . 68
- Emergency Calls and Call Hold/Wait 69

ACCESSORIES AND OPTIONS 3

BATTERY OPERATION 70
Low Battery Warning 70
Battery Saving Feature (DTX) 70
Replacing Battery 71
Important Charging Information 71
Overnight Desktop Battery Charger 72
Rapid Desktop Battery Charger 72

BATTERY SAVER 73

ULTRA SAVER 73

CAR KIT FEATURES 74
Automatic Answer 74
Entertainment Mute / Auxiliary Alert 75
Entertainment Mute 75
Auxiliary Alert 75
Safety Timer 76

MICRO CAR KITS 77
Simple Micro Car Kit 77
Coupled Micro Car Kit 77
Micro Car Kit Operation 78
Micro Car Kit Vehicular Charger 79
Switching Phone On/Off 80
Adjusting Volume 81
Automatic Hands Free 81
Standard Hands Free 82
Micro Car Kit Rear Panel 82

CONTENTS

ACCESSORIES AND OPTIONS 3

BASIC CAR KIT 83
- Basic Car Kit Operation 83
- Basic Car Kit Vehicular Charger 84
- Switching Phone On/Off 85
- Adjusting Volume 85
- Automatic Hands Free 86
- Switching Between Hands Free and Handset 87

INDEX 88

The Manufacturer reserves the right to make changes in technical and product specifications without prior notice.

INTRODUCTION

This cellular telephone is designed for the GSM System. Using this phone makes it possible to contact any phone in the world, provided you are in an area covered by the GSM system.

The cellular telephone does not contain your GSM-subscriber number, this information is contained on your SIM card supplied by your local network operator. All billing will be registered, when the conversation takes place, to the subscriber number on the SIM card which is inserted in the phone.

Instruction sequences shown in this manual are presented in the following format:

This format indicates that you should press the key and then the 2 DEF key (one, then the other, not simultaneously).

For your protection, some features require a 6-digit security code.

- Your security code is initially set to '000000'. To program a unique security code, please see section, 'Changing the Security Code.'

Telephone Overview

See flap at the front page.

Display

The display and keypad are back lit whenever the telephone is switched on. After several seconds, the back lighting will turn off.

Pressing any key will return the back lighting.

1. Displays the entered telephone number or alpha message. The following indicators may also appear in the display:

   ⏻ Power on
   Stays lit while the phone is on.

   In Use
   Symbol lights when a call is in progress.

   ∅ No Service
   Fixed symbol: You are out of cellular system coverage and cannot make calls.
   Flashing: You are in an area with coverage but not registered on the system. You can make emergency calls using the special GSM emergency number, 112, but cannot make/ receive ordinary calls.

   ▲ Roam
   Fixed Symbol: You are registered on a preferred system different from your home system.
   Flashing: You are registered on a non-preferred system.

Signal Strength
The more segments displayed in the bar graph, the better the signal strength and call quality.

Battery Level
Fixed symbol: Battery charge level is sufficient for normal operation.

Slow flash: Warning! Battery charge level becoming low.

Rapid flash: Battery charge level is nearly depleted. Replace or recharge battery.

Short Message Service
This icon is used to support various SMS features.

Cold Temperature Note

This phone is equipped with the latest in display technology. This "supertwist" liquid crystal display (LCD) provides superior performance, viewing angle and viewing contrast over previous LCD technologies. At extremely cold temperatures, it is normal for the display to respond more slowly to key presses. *When entering numbers under these circumstances, the audible tones will still indicate that a key has been depressed and the visual indication will follow shortly.*

Volume Keys

2. The push buttons on the right side of the phone adjust the earpiece and ringer volume levels. Press the top button to increase, or the bottom button to decrease the volume level.

To adjust earpiece volume:
Operate the volume buttons with the phone held to your ear.

To adjust ring alert volume:

☞ Operate the volume buttons to the desired volume level for the ring tone of incoming calls.

SIM Card Release

3. To remove SIM card, slide button down, then pull SIM card out.

Keypad

4. Press to turn phone on or off.

5. Press to make and receive calls.

6. Press to end calls.

7. M+ Use to store numbers and names into memory.

8. MR Use to recall numbers and names from memory.

9. *Microphone mute*
Switches microphone off/on during conversation.
Select by pressing

Secondary features ↑
Use in sequence with other keys to initiate features.

10. *Letter entry* (a):
Use to store and recall phone numbers with names.
Clear (c):
Clears the display. Press and release to clear last digit. Press and hold to clear entire display.

11. *Menu:*
Use to initiate menu features
Short Message Service (✉):
Use to initiate SMS features.

12. Press to move forward and backward through memory locations and feature menus.

BASIC OPERATION

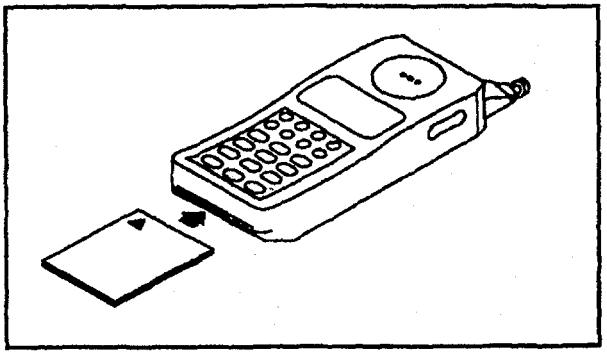
Your network operator supplied you with a subscription card known as a Subscriber Identitiy Module card or **SIM** card. The SIM card is your key to accessing GSM services and contains the following personal data:

- subscriber number
- home system
- services subscribed to
- PIN and unblocking codes

Your valid SIM card must be correctly inserted into the phone's card reader to access services.

Inserting the SIM Card

Insert the SIM card into the phone's card reader either before or after turning the phone on.



If the SIM card is missing, **'Insert Card'** will appear in the phone's display.

If the SIM card is damaged or not correctly inserted, (e.g. inserted upside down or backwards) **'Check Card'** will appear in the display. Check for proper orientation and re-insert the SIM card.

To remove SIM card, slide SIM card release button down, then pull SIM card out.

Switch Phone On/Off

Switch on:

If the SIM card is not inserted the display will prompt you to do so. The telephone then checks the validity of the SIM card.

If **'Enter PIN'** appears in the display, the SIM card is protected by a PIN code.

For more information on PIN codes, see section, "Entering the PIN Code".

If **'Enter Unlock Code'** appears in the display, the phone is protected by an electronic lock.

For more information on lock features, see section, "Electronic Lock".

If **'Blocked'** appears in the display, your SIM card is blocked from use. Please see section, "Unblocking the SIM card".

If **'Bad Card'** or **'Blocked'** then **'See Supplier'** appears in the display, a problem exists with your SIM card. Please seek help from your network operator.

Switch off:

Entering the PIN Code

Your Personal Identification Number (PIN) is a 4-8 digit code that protects your SIM card from unauthorised use.

The first PIN code is selected by the SIM provider. To change or disable the PIN code, see sections, "Changing the PIN Code" or "PIN Code Enable/ Disable".

When the SIM card is protected by a PIN code, **'Enter PIN'** appears in the display whenever the phone is switched on or the SIM card is inserted.

PIN code

The PIN code will appear as * * * * * *

If you make a mistake while entering the PIN code,

If the PIN code is accepted, **'OK'** will appear in the display.
If the PIN code is not accepted, **'Wrong PIN'** then **'Enter PIN'** will appear in the display. Re-enter PIN code.

If you do not succeed after three attempts, **'Blocked'** will appear in the display. The SIM card is blocked from further use. To unblock the SIM card, see section, "Unblocking the SIM card".

Making Calls

The ∅ indicator must be off.

☞ Telephone number

Phone numbers up to 20 digits long may be dialled.

If a call is temporarily interrupted, **'Retrying'** may appear in the display. The system will automatically reconnect the call if possible.

Dialling Errors

To erase last digit: ☞ C

To erase entire display: ☞ C and hold

Ending Calls

☞

To retry if number is busy: ☞

Receiving Calls

Your phone must be on, unlocked, and in service.

To answer calls:

☞

To stop alert signal without answering:

☞

Call in Absence

When a call has been received but the phone has not been answered, the message "***CALL***" will be displayed. If the phone is locked the message "**LOCKED**" will appear after pressing the C button to clear the "***CALL***" message from the display.

Automatic Redial

Before ending an unsuccessful call attempt:

'**Redial**' will appear in the display.

Your phone will continuously attempt to complete the call until the redial procedure times out. When the call is successful, your phone will ring once to alert you.

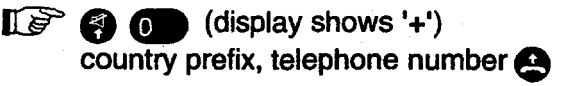
To cancel:

or turn the phone off.

International Calls

Just like the ordinary telephone system, you must add an international prefix before dialling the country prefix and the telephone number. This feature automatically adds the international prefix.

To select:


(display shows '+')
country prefix, telephone number

It is possible to store the sequence into memory and still have the maximum of 20 digits.

GSM Emergency Calls

To dial the GSM emergency number, 112:

This call may be initiated with or without a SIM card inserted and despite electronic lock activation or PIN protection. The call is directed to a central emergency operator as long as the ∅ indicator is either flashing or off.

Storing Telephone Nos. into Memory

Your phone can store up to 100 telephone numbers and names. Each memory location can hold a number up to 20 digits long and a name up to 16 characters long. The phone's memory locations are labelled from 1 to 100.

Additionally, your SIM card may also store telephone numbers. Please contact your card provider for details. SIM card memory locations are labelled 101 and up.

To store phone number with name:

☞ Enter person's name.
To enter names, the characters on the number keys are used.

For example,

to enter character 'N'.
☞ 5 MNO and hold down.

Display shows: M-N-0-5-M-N

Release key when desired character appears.
To advance to the next position, either press a new key or press #
Repeat procedure for the next character.

You could have also selected the character 'N' by pressing 5 MNO repeatedly.

To correct mistakes: ☞ C

When name is complete: ☞

Next,

☞ phone number
M+ memory location number
(1-100 or 101 and up for SIM card locations)

To store phone number without name:

☞ phone number M+ memory location number (1-100 or 101 and up for SIM card locations)

The name (if entered) and phone number will be stored in the selected memory location. If the selected memory location is already occupied, **'In Use'** will appear in the display;

☞ M+ new memory location number.
If all memory locations are filled, **'Full'** will appear in the display.

If you have no preference for a memory location number:

☞ 0 as the memory location number.

The phone number and name will be stored in the next available memory location.

If you desire a memory location in a particular decade like 50-59:

☞ 5 MNO * ◄ as memory location number.

Recalling Telephone Nos. from Memory

To recall by memory location number:

☞ MR memory location number

The name (if any), memory location number, and phone number will appear in the display.

To review name (if any) and entire phone number: ☞ MR and hold

To scroll through directory: ☞ ✱◀ or #▶

To call number: ☞

To exit and clear display: ☞ and hold

To recall by persons name:

☞ MR CLR

Enter the digit key having the first letter of the person's name.

For example;

☞ 2 DEF 2 DEF to recall a name beginning with letter "E"

The name, memory location number, and last digits of the phone number will appear in the display.

To review name and entire phone number:
☞ MR and hold

To scroll through directory: ☞ ✱◀ or #▶

To call number: ☞

To exit and clear display: ☞ and hold C

Speed Dial

☞ memory location number ✱◀

The called number is displayed.

Clearing Numbers Stored in Memory

Recall the number from memory first.

☞ C
'Clear?' will appear in the display.

☞ C
to confirm deletion

or

☞
if you do not want to clear

FEATURE MENUS

Feature menus allow you to select and cancel features by following prompts in the display.

To enter feature menus:

At the **Menu** prompt, **either**

to scroll through all menus,

or

enter the menu number for direct access.

The following is an overview of all menus:

Menu 1 - General Features

Status Review	+ 1 ABC
Automatic Answer	+ 2 DEF
Manual Roaming (Select Service)	+ 3 GHI
Preferred Provider List Display/Change	+ 4 JKL
Auxiliary Alert [1]	+ 5 MNO

Menu 2 - Interface Features

Ringer On/Off	+ 1 ABC
Keypad Tones On/Off	+ 2 DEF
Notepad Tones On/Off	+ 3 GHI
Long Tone DTMF	+ 4 JKL
PIN Code Enable/Disable	+ 5 MNO
Language Selection	+ 6 PQR
Safety Timer Setting [1]	+ 7 STU

Menu 3 - Call Monitor Features

☞ 3 GHI

1 Minute Audible Timer	+ 1 ABC
'Repeat' Audible Timer	+ 2 DEF
Once Only Audible Timer	+ 3 GHI
Automatic Monitor Displays	+ 4 JKL
Display Call Timers	+ 5 MNO
Display Call Meters	+ 6 PQR
Rate Programming	+ 7 STU
Reset Timers/Meters	+ 8 VWX

Menu 4 - Call Restriction Features

☞ 4 JKL

Restrict Keypad Dialling	+ 1 ABC
Restrict Memory Access	+ 2 DEF
Restrict Incoming Calls	+ 3 GHI
Restrict Phone Number Length	+ 4 JKL
No Restrictions, Full Service	+ 5 MNO

Menu 5 - Secure Features

☞ 5 MNO

Change/Display Unlock Code	+ 1 ABC
Master Reset	+ 2 DEF
Master Clear	+ 3 GHI
Change Security Code	+ 4 JKL
Automatic Lock	+ 5 MNO

Menu 6 - Other Features

☞ 6 PQR

Battery Save Feature (DTX) [2]	+ 1 ABC
Automatic Hands Free [3]	+ 2 DEF

Menu 7 - SMS Features

☞ 7 STU

Automatic Cell Broadcast	+ 1 ABC

Note

1. *Only displayed when used with the GSM Micro Car Kits.*
2. *Not displayed when used with Car Kits.*
3. *Only displayed when used with the Basic Car Kit.*

To access features within a menu:

Enter feature number (or **1** to review features from beginning)

To scroll through features:

☞ ✱◀ or #▶

The display will show the feature name, number and status (if applicable).

Once the desired feature is displayed:

☞ M+ and follow the prompts.

Menu features are simply toggled on/off using the M+ key. Some features will prompt for more information, such as the security code.

To exit menu operation:

☞ C C C *or* ⏻

STATUS REVIEW

Status review allows you to review any features changed from their original settings.

To review these features:

☞ ↑ MENU 1 ABC 1 ABC M+

✱◀ or #▶ to move through the messages.

⏻ to exit status review.

If '**Standard**' appears in the display, no default settings have been changed.

MASTER RESET

USE THIS FEATURE WITH CAUTION.

You can reset all features that you may have changed back to their original settings.

Cancels the following:

- Automatic Answer
- Long Tone DTMF
- Safety Timer
- All Audible Call Timers
- Automatic Call Monitor Display
- Battery Saving Feature (DTX)
- Selected Language
- Auxiliary Alert
- Auto Hands Free
- Electronic Lock
- Restricted Calls
- Auto Cell Broadcast

Restores the following:

- Keypad tones
- Ringer
- Notepad tones
- Volume level to medium

To select:

security code

'Reset Complete' will appear in the display.

MASTER CLEAR

USE THIS FEATURE WITH CAUTION.

Performs the same function as 'Master Reset' plus these additional functions;

Clears:
- All 100 memory locations*
- Notepad
- Last Number Called
- Home Charge Rate
- Roam Charge Rate

Resets:
- Resettable Call Timers
- Resettable Call Meters

To select:

security code

'Clear Complete' will appear in the display.

Note

* *SIM card memory locations are not cleared*

SYSTEM REGISTRATION

Automatic Roaming

The SIM card memory contains space for a list of "preferred" network operators.

If coverage on your home system becomes unavailable, the telephone will automatically try to establish contact with one of the preferred network operator locations on this list. This is done in the order that they are listed.

If automatic roaming is successful the ▲ indicator will light up indicating that you are registered on a preferred system different from your home system.

If service from one of the preferred network operators is not available, **'Select Service'** will appear in the display.

To defer service selection: ☞ ⏻

To see a list of network operators available in your immediate area:

☞ M+

The display shows the first network operator on the list.

Example: 1 234-01

Position on list (1-9, A-W)
Star = Preferred Operater
Blank = Non-Preferred Operater
Network operator Code

Operators are listed in order of decreasing signal strength.

To scroll through operator list:

or

To select displayed network operator:

If you are accepted by the system, the display will show the operator code and the ▲ indicator will start flashing, indicating that you are registered on a non-preferred system.

If you are not accepted by the system, the ∅ indicator will flash. To select a different network operator, continue as described in the section, "Manual Roaming".

Manual Roaming

You may manually select a network operator from a list of those providing coverage at your immediate location.

To see the list of available network operators:

The display shows the first network operator on the list.

Example:

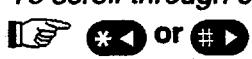
1 234-01

Position on list (1-9, A-W)
Star = Preferred Operator
Blank = Non-Preferred Operator
Network operator Code

The display may also show the network operator name or the country abbreviation with the network number.

Operators are listed in order of decreasing signal strength.

To scroll through operator list:



To select displayed network operator:

Displaying Preferred Operator List

To see the list of preferred network operators:

The display shows the first network operator on the list.

Example: 1* 234-01

Position on list (1-9, A-W)
Preferred Operator
Network operator Code

To scroll through operator ist:

Where no network operator has been programmed, e.g. position 7, the display will show: 7*

To exit preferred provider list:

To programme a network operator, see the section, "Changing Preferred Operator List".

Changing Preferred Operator List

A list of international network operators and their codes may be obtained from your network operator.

Enter the preferred list and scroll to the position you want to change as described in the section, "Displaying Preferred Operator List".

To change the displayed network operator:

☞ M+ Network Operator Code

Example:
Network Operator Code = 234-01

To access preferred list:

☞ ↑ MENU 1 ABC 4 JKL M+

To scroll to position:

☞ # ▶

To enter new network operator code:

☞ M+ 2 DEF 3 GHI 4 JKL 0 1 ABC

To clear the displayed network operator:

Check that it is the network operator that you want to clear.

If OK,

☞ C *(If not,* ☞ ↓*)*

If C is pressed, **'Clear?'** will appear in the display.

Confirm by ☞ C
(otherwise ☞ ↓*)*

To exit preferred operator list: ☞ ↓

MEMORY FEATURES

Notepad

During a call, if you need to record a phone number, you can enter it into the display as a form of electronic notepad. Once you have ended the call, this number can then either be called by:

☞

or stored into memory by:

☞ M+ memory location number.

Recall the number by: ☞ MR and hold

Recall Last Number 'Called'

☞ MR 0

The last number called will appear.

For security reasons, you may wish to clear the last number called. You can do so by entering any invalid number, and then:

☞

2 ADVANCED INFORMATION

Memory Linking

Memory linking allows you to "link" a number from memory to a number already in the display.

To link numbers:

☞ digits ↓ MR memory location number.

INTERFACE FEATURES

Electronic Lock

Protects your phone from unauthorised use.

To lock: ☞ ↓ 4 JKL

To unlock:

☞ 3 or 4 digit unlock code # ▶

Upon delivery, the unlock code is set to 123.

If you forget the unlock code, you can still access the "Change Unlock Code" feature to display the current unlock code. Your security code will be required.

Automatic Lock

The phone can be set to automatically lock every time the phone is turned off.

To enable/disable automatic lock:

To toggle the function on/off:

Changing the Unlock Code

To change the unlock code:

security code.

Display shows current unlock code.

New Unlock Code (3 or 4 digits) M+

Your new unlock code will display for six seconds.

Avoid using the GSM emergency number as your unlock code.

Ringer On/Off

To mute the ring tone of incoming calls and replace with the word **'Call'** in the display:

M+ to toggle ringer on/off.

If **"Automatic Answer"** has been selected, then muting the ring tone is not recommended.

Keypad Tones On/Off

To mute the tones heard when pressing keys:

to toggle tones on/off.

Tone Signalling Features

Tone signalling features allow you to communicate with external devices that respond to Dual Tone Multi-Frequency (DTMF) tones.

Notepad Tones On/Off

If you use the "Notepad" feature often, the DTMF tones heard while pressing keys may irritate the called party. To avoid this, you can mute these tones:

to toggle tones on/off.

With the notepad tones muted, you will still hear a feedback tone whenever you press a key, but the called party will not. If you wish to transmit DTMF tones while the notepad tones are muted, simply:

digits

Pauses in Memory

This feature makes two part calling more convenient by allowing you to dial sequences of numbers separated by pauses. The pause in the number sequence will stop transmission at that point to allow for a system response, such as a second dial tone.

To construct sequences:
Enter the first numbers you wish to send, or recall them from memory by:

☞ MR memory location number.

1. Then to insert a pause: ☞ ● ●

   A small square will appear after the number to represent the pause.

2. Enter the next number, or recall from memory by:
   ☞ ● MR memory location number.

Repeat steps 1 and 2 for a maximum of 32 digits. An additional 12 digits may be appended to the standard 20 digits. The international prefix (+) and a pause each count as 1 digit.

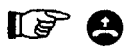
You can store this number sequence in memory locations 1-100. Number sequences containing pauses cannot be stored to your SIM card.

To make calls using number sequences:

Construct or recall sequence first.

Digits prior to pause are transmitted.

1. Await system response.

2. 

Digits prior to next pause are transmitted.

Repeat the steps 1 and 2 until all digits have been transmitted.

DTMF Signalling

DTMF tones used to signal pagers, access computers, etc., can be sent using your phone.

DTMF dialling from keypad:

Once the call is established, press the keypad digit keys to transmit DTMF tones. Do not use the key.

DTMF dialling from memory:

1. Establish the call.
2. Recall from memory the number you wish to transmit as DTMF digits.
3.

Repeat steps 2 and 3 as necessary, to send separate groups of numbers.

Actual DTMF tone sent over the air lasts about a tenth of a second. If you require longer tones use the "Long Tone DTMF" feature.

Long Tone DTMF

Certain electronic devices require longer tones e.g. answering machines. This feature allows you to transmit a DTMF tone for as long as the key is depressed.

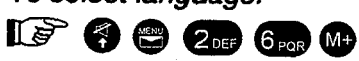
To select/cancel:

to toggle feature on/off.

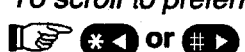
Language Selection

You can select the language in which the prompts are displayed.

To select language:



To scroll to preferred language:



to make language selection.

PIN Code Enable/Disable

You may enable or disable (if the SIM card allows) the PIN code. When disabled, you do not have to enter the PIN Code when the phone is turned on.

To enable/disable PIN code:

PIN code M+ or # ▶

If the display shows;

'Not Allowed', disabling the PIN code is not allowed by the network operator.

'Wrong PIN', the PIN code was wrong. You must start over. If you have forgotten your PIN code, you may choose a new PIN code by using the procedure described in the section, "Unblocking the SIM Card".

'Blocked', three unsuccessful attempts at entering the PIN code have been tried. See section, "Unblocking the SIM Card".

Changing the PIN Code

The first PIN code is selected by the SIM card provider. The PIN code must be enabled before it may be changed.

To change the PIN code:

original PIN code

new PIN code (4-8 digits)

new PIN code again

If the display shows:

'OK' the PIN code has been changed.

'Matching Error', the two new PIN codes did not match. You must start over.

'Wrong PIN', the original PIN code was wrong. You must start over.

If you have forgotten your PIN code, you may choose a new PIN Code by using the procedure described in the section, "Unblocking the SIM Card".

'Blocked', three unsuccessful attempts at entering the PIN code have been tried. See section, "Unblocking the SIM Card".

Unblocking SIM Card

The SIM card is blocked from use upon three unsuccessful attempts at entering the PIN code. To unblock the SIM card, you must choose a new PIN code following the procedure below. Use the unblock code supplied by the SIM card provider.

To unblock SIM card:

When **'Blocked'** appears in the display,

unblock code

new PIN code (4-8 digits)

new PIN code again

If the display shows;

'OK', you have unblocked the SIM card and entered a new PIN code.

'Matching Error,' the two new PIN codes did not match. You must start over.

'Wrong Code,' your unblock code was wrong. You must start over.

If you do not succeed after 10 attempts, the SIM card is permanently blocked. **'Blocked, See Supplier'** will appear in the display. You must then seek help from your network operator .

Changing the Security Code

Upon delivery, your security code is "000000".

To change the security code:

security code

Display shows current security code

Enter new security code M+

In case you have forgotten the programmed security code, please contact your telephone dealer's service centre.

CALL MONITORING

The phone has a variety of features to help you monitor time and costs accumulated when making calls.

These features provide both audible and visual call monitoring.

Note: Depending upon your model, the phone will monitor either all calls or only outgoing calls.

One Minute Audible Call Timer

You can programme the phone to emit a beep 10 seconds before the end of each minute of a call.

To select/cancel:

M+ to toggle feature on/off.

Programmable Audible Call Timer

You can programme the phone to signal you two different ways:

1. Every X seconds during a call.
2. Once after Y seconds during a call.

The value of X and Y are programmed by you. The phone will emit a beep ten seconds before the interval X or Y is reached.

Option 1

To select/cancel:

time period in seconds (011-999) M-

to toggle feature on/off.

Option 2

To select/cancel:

time period in seconds (011-999) M-

to toggle feature on/off.

Visual Call Timers & Meters

The visual call monitors consist of seven call timers and seven call meters. To use the call meters you must programme a rate-per-minute into the phone, using either charge units or currency.

Note: Depending upon your model, the phone will monitor either all calls or only outgoing calls.

Descriptions of the various call timers/meters are as follows:

Individual - Accumulates time and charge for the most recent call made. Automatically returns to zero before each call.

Resettable - Accumulates time and charge for calls made since last reset. There are three types of resettable call timers/meters:

Home Accumulates time and charge for calls made on your home system, since last reset.

Roam Accumulates time and charge for calls made while roaming, since last reset.

Total Sum of Home and Roam call timers/meters.

To reset all resettable call timers/meters:

Cumulative - Accumulates the total time and charge for all calls made and cannot be reset. There are three types of cumulative call timers/meters:

Home Accumulates time and charge for all calls made on your home system.

Roam Accumulates time and charge for all calls made while roaming.

Total Sum of Home and Roam call timers/meters.

Displaying Call Timers

☞ [redacted]

☞ ✱◀ or #▶ to scroll through all call timers.

☞ ⏻ to exit call timers.

Displaying Call Meters

A rate-per-minute (either currency or charge unit) must be programmed into the phone. See the section, "Programming Rates".

☞ ⏻ MENU 3 GHI 6 PQR M+

☞ ✱◀ or #▶ to scroll through all call meters.

☞ ⏻ to exit call meters.

Programming Rates

Call meter rates can be programmed as either currency-per-minute or charge units-per-minute. In either case, the minimum time interval increment is 30 seconds.

To programme rates:

Security Code
Home Rate M+
Roam Rate M+

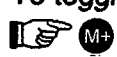
The roam rate is initially set to the home rate to prevent you from setting it to zero by mistake.

Automatic Monitor Displays

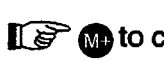
You can automatically display the time or charge of each outgoing call both during and after the call.

To select/cancel:

To toggle feature on:



Select either **'Auto Timer'** or **'Auto Meter'** using the scroll keys.

 to confirm selection.

To toggle feature off:

CALL RESTRICTIONS

Call restriction settings are stored in the phone, but may affect SIM card usage.

The following restrictions are available:

- Keypad Dialling
- Memory Access
- Incoming Calls
- Phone Number Length

These may be selected/cancelled independently to suit your needs.

Restrict Keypad Dialling

Prevents any keypad dialling except for '112' emergency calls and recall from memory.

To select/cancel:

To toggle feature on/off:

security code

Restrict Memory Access

Only those memory locations selected by you are accessible for storing and recalling. Memory locations outside this range are programmed as either:

Protect: Storing and recalling are barred.

Recall Only: Only recalling is allowed.

To select/cancel:

To toggle feature on:

security code
Select either **'Protect'** or **'Recall Only'** using the scroll keys.

to confirm selection.
Enter low limit
Enter high limit

To toggle feature off:

security code.

Restrict Incoming Calls

Only outgoing calls are allowed.

To select/cancel:

To toggle feature on/off:

security code.

Restrict Phone Number Length

This can be done to prevent long distance and international calls.

DTMF signalling is also disabled.

To select/cancel:

To toggle feature on:

security code.

Display will show maximum number of digits that can be sent.

To change this maximum:

Enter new maximum number (up to 20) M+

To toggle feature off:

security code.

'112' emergency calls are still possible.

Digits after pauses in phone numbers do not count toward length limit.

Full Service

Permits full keypad and memory usage.

To select:

security code.

If selected, this service will remove all call restrictions previously selected.

CALL BARRING

Call barring is a SIM card feature. If you subscribe to call barring, you may bar incoming and/or outgoing calls by entering a special key sequence. The key sequence includes a "barring code" and a password.

The first password is supplied by the network operator.

Common types of barring:

all outgoing calls	**barring code: 33**
all outgoing international calls	**barring code: 331**
all outgoing international calls except those to home network operator	**barring code: 332**
all incoming calls	**barring code: 35**
all incoming calls when roaming	**barring code: 351**

Additional call barring services may be provided. Consult your network operator for further information.

Activating Call Barring

☞ * barring code *
password #

If display shows;

'Please Wait', your request is being processed.

'Barring On', barring has been enabled.

Example

Bar all incoming calls.

barring code: 35
password: 2468

☞ * 3 GHI 5 MNO * 2 DEF 4 JKL
6 PQR 8 VWX #

Cancelling Call Barring

To cancel a single type of call barring:

☞ # barring code *
password #

To cancel all types of call barring:

☞ # 3 GHI 3 GHI 0 *
password #

'Barring Off' will appear in the display.

Call Barring Status

To check whether call barring is on or off:

☞ * # barring code # ☹

If display shows;

'Barring On', call barring is on.

'Barring Off' call barring is off.

Each call bar type must be checked individually.

Example

Check status of 'barring all incoming calls'.
barring code: 35

☞ * # 3 GHI 5 MNO # ☹

Changing Call Barring Password

☞ * * 0 3 GHI *
3 GHI 3 GHI 0 *
old password *
new password *
new password # ☹

If display shows;

'Password Changed', password changing was successful.

'Matching Error', the two entries of the new passwords did not match. Try again.

Special Call Barring Messages

While call barring is active, the following messages may appear in the display;

'Outgoing Call Barred', you have tried to make a call while outgoing calls are barred.

'Wrong Password', you have entered the wrong call barring password. Try again.

'Call Barred', you have made a call to someone who has barred incoming calls.

CALL FORWARDING

Call forwarding is a SIM card feature. If you subscribe to call forwarding, you may forward incoming calls to another phone number by entering a special key sequence. The key sequence includes a "forwarding code".

Common types of call forwarding:

unconditionally **forwarding code: 21**
Forwards all incoming calls.

no answer **forwarding code: 61**
Forwards calls which you do not answer.

not reachable **forwarding code: 62**
Forwards calls which you cannot answer.

For example:

- your phone is out of coverage.
- your phone is switched off.
- your SIM card is not inserted.

busy **forwarding code: 67**
Forwards calls received while your phone number is busy.

Additional call forwarding services may be provided. Consult your network operator for further information.

Activating Call Forwarding

forwarding code
phone no.

If display shows,

'Please Wait', your request is being processed.

'Forward On', forwarding has been enabled. This message also appears each time you make a call if call forwarding is on.

'Invalid Number', The phone number you have chosen to receive your calls is invalid.

You may use a different phone number for each call forwarding type.

Example

Forward calls if busy.
forwarding code: **67**
phone no. to receive calls: **13579246**

Cancelling Call Forwarding

To cancel a single type of call forwarding:

To cancel all types of call forwarding:

'Forward Off' will appear in the display. This message also appears if the network cancels call forwarding.

Example

Cancel call forwarding if busy.
forwarding code: **67**

Call Forwarding Status

To check whether call forwarding is on or off:

If display shows;

'Forward On, 13579246', call forwarding is on to number shown.

'Forward Off', call forwarding is off.

Each call forwarding type must be checked individually.

Example

Check status of 'call forwarding if busy'.
forwarding code: **67**

Special Call Forwarding Messages

While call forwarding is active, the following messages may appear in the display;

'Call Forward',	either a call made to you or a call you have made has been forwarded.
'Busy Try Later',	the network is processing your earlier request. Please try again later.
'Not Allowed',	you cannot activate this service.
'Network Problem',	communication with the network failed. Please try again.
'Invalid Command',	either a key sequence failure or an unsuccessful attempt. If the message appears after repeated attempts, please consult your network operator.
'Not Available',	this service is not available.

SHORT MESSAGE SERVICE (SMS)

The Short Message Service (SMS) is comprised of a set of features which enables your GSM phone to send and receive messages to and from the network. This model phone is designed to support both the Cell Broadcast and Point to Point Mobile Terminated portions of the SMS feature set.

Automatic Cell Broadcast

Your Network Operator may wish to send you important messages using a GSM feature called 'Cell Broadcast.' The Network Operator sends the information to your phone over a 'broadcast channel' (similar to television or entertainment radio transmissions. This channel may also be referred to as a 'Message Identifier' by some publications). By selecting 'Auto Cell Broadcast' and entering the appropriate broadcast channel number, these messages will scroll across your phone's display whenever you are not in a call.

There may be multiple broadcast channels in your service area. Please contact your Network Operator for a list of available channels and the information they supply.

To select:

cell broadcast channel M+

(C can be used to correct undesired channel number entries)

The phone will display the selected channel for a few seconds and then revert back to the ON/OFF menu heading.

To select/cancel:

to toggle feature on/off

To change broadcast channel:

First ensure that the feature is turned off, using the cancel sequence as shown above.

Then:

new cell broadcast channel M+

To exit Cell Broadcast menu:

To scroll through complete message (when not in a call):

Point to Point Short Messages

Your phone can also receive Point to Point Short Messages. These messages are not the same as the Cell Broadcast messages, as they are transmitted to your phone only. The received messages are stored on your SIM card and they can be retrieved at a later date.

Receiving Point to Point Messages

When your phone receives a message, it will follow the procedure below.

1 There will be an alert signal of three short tones.
2. The Short Message Service icon will light.
3. The display will show **'Message'** if the phone is not in a call.
4. The message will be stored in the SIM card. Up to a maximum of 35 messages may be stored this way. The maximum number of messages stored will also depend upon the SIM card, since some SIM cards will have a lower capacity.

If the display shows **'Message'**, when you are using the feature menu, pressing the C key will return you to the feature menu, but pressing MENU will display the new message.

Storage of Point to Point Messages

When a message is received, the phone will check to see if there is a location available, for storing the message, in the SIM card.

If the SIM card is full then the ✉ icon will flash. No more messages can be stored in the SIM card, until one or more of the stored messages are removed.

The new messages may be saved by your Network Operator and sent, at a later date, when a location becomes available in the SIM card. If a message location is not made available within a set time period, the Network Operator may remove the new messages.

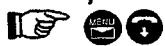
Reading Point to Point Messages

Pressing the MENU key will show the number of messages you have at present. The top line shows the number of new messages and the bottom line indicates the number of older messages. This display will go out after two seconds.

Up to 35 messages can be stored, depending upon the SIM card capacity. These messages will be identified by a number between 1 and 35. The oldest unread message will be in location 1.

The bottom line of the display will display the message. The message will automatically scroll twice from right to left.

To stop the message scrolling:



To start the message scrolling again:

To view other messages:

To delete the message:

The next message will be displayed, if there is one, or the menu will exit if there are no further messages.

All messages have the date, time and caller's phone number printed at the end in the following format:

<Day/Month/Time><Caller's Phone Number>. Note the availability of the caller's number is controlled by the Network Operator.

Clearing Messages From Memory

To remove a message from memory:

The phone will show the following message - **'Clear?'**

To confirm the deletion:

or

to cancel.

When a message has been deleted the next message will be displayed, if there is one. If there are no further messages the menu will be exited.

Embedded Callback Numbers

If a phone number is included in the message, within quotation marks, the phone has the ability to call the number by simply pressing the key.

For example the following message would permit the callback feature.

Phone "MCSG" on "0555 444 333" by 12:00

The first section within quotation marks would be ignored, because it does not start with a number.

Be warned, however, in the event of receiving the following message:

Phone "1st National" on "0555 666 777"

The callback feature would attempt to call 1! If there is no phone number in quotation marks, then the call back feature will call the <caller's phone number> at the end of the message, if it is supported by the Network Operator.

Short Message Alert Tone

You have the option to turn the Short Message Alert Tone on or off.

To turn the alert tone on or off:

to toggle feature on/off.

CALL WAITING AND CALL HOLDING

This model phone supports the GSM 'Call Hold' and 'Call Waiting' features.
In order to use these features the following conditions must be met. Firstly, the Network Operator has made the feature available and secondly, you have subscribed to the feature. Using these features you may place a current call on hold and either accept an incoming call or start a second call.

Call Waiting

You have the option to turn the call waiting feature on or off, for future calls.

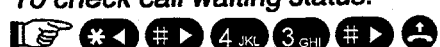
To turn call waiting on:

The display will show **'Call Waiting On'** if the activation is successful.

To turn call waiting off:

The display will show **'Call Waiting Off'** if the deactivation is successful.

To check call waiting status:



The display will show **'Call Waiting On'** or **'Call Waiting Off'**.

When the Call Waiting feature is on and a call is in progress, a second caller to your phone will hear the ring tone. Your phone will produce a single beep, followed by a double beep every eight seconds and the display will show **'Call Waiting'**.

If however the feature is off, a second caller will hear the busy tone.

Call Holding

This feature is controlled by your Network Operator and is used in conjunction with the call waiting feature to produce several different results.

Call Hold and Waiting Combinations

If a call is active and there is no call waiting:

The active call will be placed on hold and the display will show **'Holding'** to indicate that the hold request is in progress. The display will show **'Call Holding'** when the process is complete.

or

The active call will end and the phone will be available for further calls.

If a call is active and there is a call waiting:

The active call will be placed on hold and the display will show **'Holding'** to indicate that the hold request is in progress. When the call has been held, the display will show **'Accepting'** to show that the waiting call is being connected. **'Call Holding'** will be shown when the process is complete.

or

The display will show **'Please Wait'** while the active call is ending. When the call has been ended, the display will show **'Accepting'** to show that the waiting call is being connected.

If a call is active and there is a held call:

The display will show **'Switching'** as the held call becomes active and the previously active call is held. **'Call Holding'** will be shown when the process is complete.

or

The active call will end and the currently held call will become active.

If a call is held and there is no call waiting:

The display will change from **'Call Holding'** to **'Connecting'** as the held call becomes active.

or

The held call will end and the phone will be available for further calls.

If a call is held and there is a call waiting:

The display will show **'Accepting'** to show that the waiting call is being connected. The currently held call will remain held and **'Call Holding'** will be shown when the process is complete.

or

The display will show **'Please Wait'** while the held call ends. When the call has been ended, the display will show **'Accepting'** to show that the waiting call is being connected.

Call Hold and Making New calls

If a call is active and there is no call waiting:

Place the call on hold as described above and then:

☞ Telephone number

The **'Dialling'** message will be shown, to indicate that the new call is being attempted. The display will show **'Call Holding'** when the process is complete.

Call Hold and Call Waiting Messages

There are several messages which may appear during call hold and call waiting operations.

'Hold Failed': an active call could not be put on hold.

'Connect Fail': a held call could not be made active again.

'Answer Waiting Call': an attempt to make a new call was made whilst a call is waiting. The waiting call must be answered first.

'Cannot Hold Second Call': a call is already on hold, you cannot place two calls on hold at the same time.

'Busy Try Later': the phone is still working on a previous command. Wait for a short time before repeating the command.

Emergency Calls and Call Hold/Wait

If you make a call to the GSM emergency number, then any currently active, held or waiting calls will end.

You cannot use the hold or waiting features when you are making an emergency call.

3 ACCESSORIES AND OPTIONS

BATTERY OPERATION

The only maintenance required for the batteries is to keep them charged and the contacts clean (a pencil eraser works well). The battery pack should be near room temperature when charging.

WARNING !

Batteries may explode if disposed of in fire.

Low Battery Warning

When the battery level becomes too low for normal operation, a warning signal (two double beeps) will sound. **'Low Battery'** will appear in the display. When the battery is almost completely discharged, the phone will turn off.

Battery Saving Feature (DTX)

The Battery Saving Feature, also known as Discontinuous Transmission (DTX), allows the phone to operate at reduced power when you are not talking.

To select/cancel:

☞ MENU 6 PQR 1 ABC

☞ M+ to toggle feature on/off.

Replacing Battery

To remove battery:
Grasp the phone in one hand, push the thumb catch on the back of the phone, and slide the battery down and off.

To attach battery:
Line up the top of the battery with the horizontal line on the back of the phone. Place the battery on the guides and push up until the battery locks into place.

Important Charging Information

- Both NiCAD and NiMH batteries can be used with your phone.
- It is normal for the battery to become warm during charging.
- Do not leave batteries charging for more than 24 hours.
- NiMH batteries have a high rate of self-discharge compared to NiCAD batteries. Battery capacity can be restored by recharging.

Overnight Desktop Battery Charger

The charger's front pocket accepts batteries either alone or while attached to the phone. The charger's rear pocket accepts batteries alone.

Slow charging will typically take 10 to 15 hours depending on the type of battery being charged.

The yellow lamps indicate that the phone or batteries are properly inserted and charging.

When charging a battery attached to the phone, turn the phone off. Leaving your phone on while charging could extend the recharge time.

Rapid Desktop Battery Charger

The charger's front pocket accepts batteries either alone or while attached to the phone. The charger's rear pocket accepts batteries alone.

Rapid charging will typically take approximately 90 minutes for all battery types. Small batteries will be charged simultaneously in the charger. Larger batteries are charged sequentially, front pocket first followed by the rear pocket.

Each pocket has its own three-colour lamp to indicate that the phone or battery is properly inserted in the charger pocket and either rapid charging (red), finished charging (green), or trickle charging (flashing yellow).

BATTERY SAVER

The Battery Saver requires no installation and allows you to power your phone from the car's electrical system. The Battery Saver does not charge the phone's battery, but saves it from use.

Attach the Battery Saver by sliding the flat end of the Battery Saver connector into the connector slot on the back of the phone. You will hear a click when proper connection is made. Plug the cigarette lighter adaptor into the car's cigarette lighter socket.

To unplug the Battery Saver from the phone, squeeze both sides of the connector until the tabs release, then remove the connector from the phone.

ULTRA SAVER

The Ultra Saver requires no installation and allows you to power your phone from the car's electrical system. The Ultra Saver also charges the phone's battery in addition to saving it from use.

Attach the Ultra Saver by sliding the flat end of the Ultra Saver connector into the connector slot on the back of the phone. You will hear a click when proper connection is made. Plug the cigarette lighter adaptor into the car's cigarette lighter socket.

To unplug the Ultra Saver from the phone, squeeze both sides of the connector until the tabs release, then remove the connector from the phone.

3 ACCESSORIES AND OPTIONS

CAR KIT FEATURES

The following features are only available when your phone is used with the optional car kits.

Automatic Answer

When using your phone with a Car Kit this feature allows your phone to automatically answer calls (no keypress required). An incoming call will ring twice, then simply talk into either the telephone mouthpiece or the hands free microphone.

Automatic answer will not operate with the *Simple Micro Car Kit.*

To select/cancel automatic answer:

If you are using the Coupled *Micro Car Kit,* make sure the phone is resting in the cradle for automatic answer to work properly.

If you are using the *Basic Car Kit,* select the automatic hands free feature before selecting automatic answer.

If automatic answer is selected while the phone's ringer has been switched off, incoming calls will only be announced by the message **'Call'** flashing in the display. The ring tone will not be heard.

Entertainment Mute / Auxiliary Alert

Depending on the option selected for your phone, only ONE of these two features will be supported. Also, the *Coupled Micro Car Kit* is required to use either of these features.

Entertainment Mute

If your phone has this feature and your car installation supports it, the car stereo will mute whenever a call is made or received. Also note that this feature CANNOT be disabled.

Auxiliary Alert

If your phone has this feature, Auxiliary Alert informs you of an incoming call when outside your car by activating an external alerting device (horn, lights).

To select/cancel:

to toggle feature on/off.

Note: With Auxiliary Alert enabled you will not turn off the telephone by switching off the vehicle's ignition.

Instead the display shows: "**Alert**"

Turning the car ignition back on will cancel Auxiliary Alert.

Safety Timer

The safety timer allows the phone to remain on for a specified period of time after the vehicle's ignition has been turned off. To prevent draining the vehicle's battery, the saftey timer will turn the phone off after the time period has expired. If you are in a call when the timer expires, it will power down after the call is completed. This feature prevents the user from having to re-enter the electronic unlock code and the PIN number for the SIM card every time the vehicle's ignition is turned off. At the time of purchase, the timer is set for one hour. You can, however, adjust the length of the safety timer from zero (0) minutes to 999 minutes. When set for zero (0) minutes, this feature is effectively disabled and the phone powers off with the ignition.

To select:

The current time period will appear in the display. If no keys are pressed within 6 seconds, this time will be retained.

To change time:

Enter new time period (up to 999).

MICRO CAR KITS

Simple Micro Car Kit

The ***Simple Micro Car Kit*** provides:

- A holder (cradle) for the phone.
- Charging of the phone's battery while the phone is mounted in the holder.
- Charging of the phone's battery while separated from the phone.

*When used along with the optional **Battery Saver** accessory, this kit also provides:*

- Power to the phone from the car battery.
- Immediate communications regardless of the phone battery charge level.

Coupled Micro Car Kit

*In addition to the above features, the **Coupled Micro Car Kit** provides:*

- Connection to an outside cellular antenna during hands free calls.
- Automatic Hands Free operation.
- Built-in hands free speaker.
- Automatic car stereo muting (entertainment mute) when receiving incoming calls.

Note:

This feature is compatible with only certain car stereos. Your phone must also be programmed to support this feature. If your phone does support this feature, you will not be able to activate 'auxiliary alert'.

Micro Car Kit Operation

Turn off your phone before attaching or detaching the car kit coil cord (or optional *Battery Saver* coil cord if using the *Simple Micro Car Kit*). Attach the coil cord by sliding the flat end of the connector into the connector slot on the back of the phone. You will hear a click when proper connection is made.

To unplug the coil cord, squeeze both sides of the connector until the tabs release, then remove from phone. When not in use, place the coil cord connector into the storage slot located on the top surface of the telephone holder.

Place your phone (bottom end first) into the holder,[1] then pivot the phone's top backwards until it clicks into place as shown in figure 1.[2]

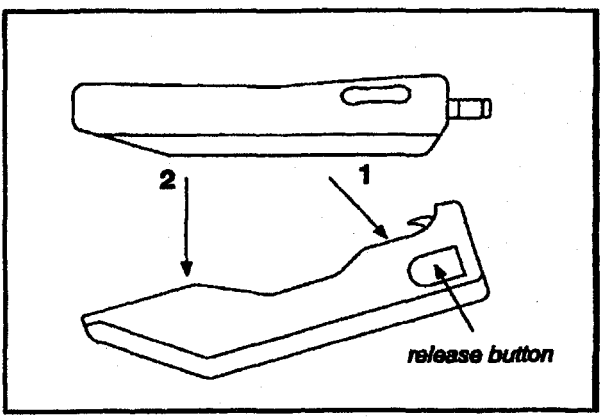


Figure 1. Insertion of Pocket Telephone into Car Kit Charger/Holder

To release the phone, press the button(s) on the side(s) of the holder. Pivot the top of the phone towards you and slide it upwards out of the holder.

Micro Car Kit Vehicular Charger

Your Car Kit includes a rapid vehicular charger. The charger will fast charge all approved pocket phone batteries whenever either the battery alone, or the battery connected to the phone is placed in the holder. The LED light located next to the holder button will light up to indicate the following:

flashing red: "Alert" - charging problem! Check to ensure that the metal contacts on the battery and on the holder are clean. Then re-insert your phone or battery back into the holder. If there is still no change, try a different battery, or contact your dealer.

steady red: rapid charging

green: done charging

yellow: "Waiting" to charge (battery too hot/too cold).

Charge times will vary depending on the type of battery used and the vehicle's electrical system. Note that charging stops in most permanent installations when the vehicle's ignition is turned off.

Switching Phone On/Off

Simple Micro Car Kit:

The phone must be turned on or off manually by

Coupled Micro Car Kit:

If your car kit has been installed with *Ignition Sense Activation*, the phone will turn on or off with the car's ignition switch, as long as the phone was powered on before the ignition was last turned off.

If you turn your car ignition off during a call, the phone will remain on until you end the call.

If you have purposely or unintentionally left your phone on while connected to the Car Kit, the safety timer will turn the phone off after a user selected time period (or four hours if no time period has been selected) to prevent draining the car's battery.

Adjusting Volume

To adjust hands free speaker volume:

Operate the phone's volume buttons with the phone in the cradle. If your are not in a call, a representative tone will be heard.

To adjust earpiece volume:

Operate the volume buttons with the phone held to your ear.

Automatic Hands Free

Hands Free operation is enabled or disabled automatically by the phone holder (not applicable for the Simple Micro Car Kit). When your phone is inserted into the holder, and the coil cord is attached to the phone, your phone will automatically operate in hands free mode. When the phone is removed from the holder the phone will revert to normal handset mode.

For the 'Coupled' Micro Car Kit, the phone will only operate with the outside cellular antenna while the phone is mounted in the holder.

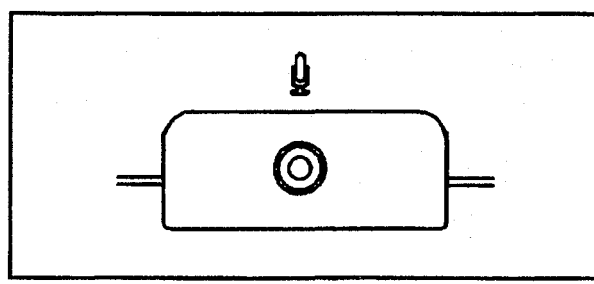
Standard Hands Free

This feature is available when you need to enter and exit hands free without the use of the cradle. For example, you may want to use the cradle to charge a second battery while still communicating in hands free mode.

To select/cancel hands free while your phone is out of the cradle and in a call:

Micro Car Kit Rear Panel

The Coupled Micro Car Kits come with a rear panel as shown below:



Indicates the car kit microphone. All Coupled Micro Car Kits come standard with a microphone, which is plugged into the car kit in this panel and mounted above your front windshield.

BASIC CAR KIT

*The **Basic Car Kit** provides:*

- Full Duplex Hands Free operation.
- Power to the phone from the car's battery.
- Connection to an outside cellular antenna during hands free calls.
- Constant illumination of the phone's keypad and display while the car is on.
- Charging of the phone's battery while mounted in the holder.

Basic Car Kit Operation

Turn off your phone before attaching or detaching the Car Kit coil cord. Attach the coil cord by sliding the flat end of the connector into the connector slot on the back of the phone. You will hear a click when proper connection is made.

To unplug the coil cord, squeeze both sides of the connector until the tabs release, then remove from phone. When not in use, place the coil cord connector into the storage slot located on the top surface of the telephone holder.

Place your phone (bottom end first) into the holder, then pivot the phone's top backwards until it clicks into place as shown in figure 2.

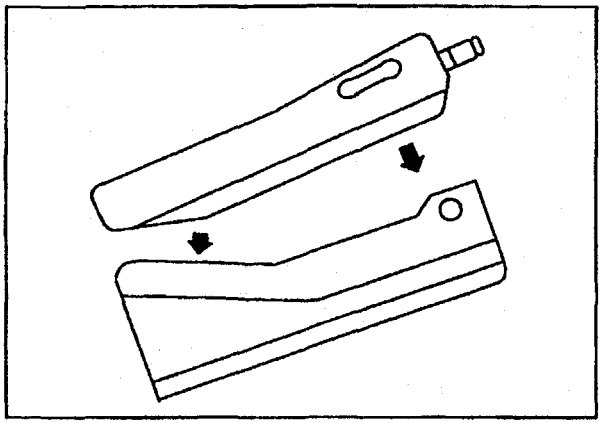


Fig. 2 Insertion of Personal Telephone into Car Kit charger/holder.

To release the phone, press the button on the right side of the holder. Pivot the top of the phone toward you and lift.

Basic Car Kit Vehicular Charger

The Basic Car Kit Vehicular Charger will charge the phone's battery in the car whenever the phone is placed in the holder.

When the charger's 2-colour lamp is red, the battery is fast charging. When the lamp turns green, the battery has finished fast charging and is trickle charging. Charging stops in most permanent installations when the car's ignition is turned off.

Battery charging using the vehicular charger will achieve charge times approximately equal to those of the Rapid Desktop Charger.

Switching Phone On/Off

If your Car Kit has been installed with *Ignition Sense Activation,* the phone will turn on or off with the car's ignition switch, as long as the phone was powered on before the ignition was last turned off.

If you turn your car ignition off during a call, the phone will remain on until you end the call.

Adjusting Volume

To adjust hands free speaker volume:

Operate the phone's volume buttons either during a hands free call or before placing the call with auto hands free selected. If you are not in a call, a representative tone will be heard.

To adjust earpiece volume:

You must be in a call using the handset. Operate the volume buttons with the phone held to your ear.

Automatic Hands Free

Hands free operation can be enabled two different ways:

1. Automatically by selecting the *Auto Hands Free* feature.
2. Manually, during a call, by

To select Automatic Hands Free:

Your phone must be connected to the Basic Car Kit.

You may wish to select this feature the first time you use the Car Kit.

To make calls with Auto Hands Free on:

Enter telephone number (or recall one from memory).

You will hear call through the hands free speaker. When call is answered, leave phone in holder and speak normally.

To receive calls with Auto Hands Free on:

Leave phone in holder and speak normally.

Switching Between Hands Free and Handset

To switch between Hands Free and Handset mode:

A

Automatic Answer 74
Automatic Cell Broadcast 58
Automatic Handsfree
  Basic Car Kit 86
  Micro Car Kit 81
Automatic Lock 35
Automatic Monitor Displays 47
Automatic Redial 17
Automatic Roaming 28
Auxiliary Alert 75

B

Barring password. ..... *See Data card*
Basic Car Kit 83
Basic Car Kit Operation 83
Basic Car Kit Vehicular Charger 84
Battery Charging 71
Battery Level 9
Battery Operation 70
Battery Saver 73
Battery Saving Feature (DTX) 70

C

Call Barring 51-54
  Activating 52
  Cancelling 52
  Changing Password 53
  Special Messages 54
  Status 53
Call Forwarding 54-57
  Activating 55
  Cancelling 56
  Special Messages 57
  Status 56
Call in Absence 17
Call Meters 46

Call Monitoring 43
Call Restrictions 48
Call Timers 43-46
Call Waiting and Call holding 64
Waiting 64
Holding 65
Hold & Waiting Combinations 65
Hold & make new calls 68
Hold & Call waiting Messages 68
Car Kit Features 74
Clearing Numbers Stored in Memory 22
Clearing Point to Point
Clearing Messages from Memory 62

D

Dialling Errors 16
Display 8
DTMF Signalling 38
DTX. ..... *See Battery Saving Feature*

E

Electronic Lock 34
Embedded Call Back Numbers 63
Emergency Calls 18
Emergency Calls and Call Hold/Wait 69
Ending Calls 16
Entering the Pin Code 15
Entertainment Mute 75

F

Feature Menus 23
Full Service 50

H

Handset. ..... *See figure on front flap*
Handsfree Operation
Auto Handsfree 81, 86
Handsfree to Handset Switching 87
Standard Hands Free 82

I

Indicators ..... 8 - 9
Interface Features 34
International Calls 18

K

Keypad 10
Keypad Tones On/Off 36

L

Language Selection 39
Last Number Called 33
Long Tone DTMF 39
Low Battery Warning 70

M

Manual Roaming 30
Master Clear 27
Master Reset 26
Memory Features 33
Memory Linking 34
Micro Car Kits 77
Coupled 77
Simple 77
Micro Car Kit Operation 78
Micro Car Kit Rear Panel 82
Micro Car Kit Vehicular Charger 79
Microphone Mute 11

N
Notepad 33
Notepad Tones On/Off 36

O
One Minute Audible Call Timer 43
Overnight Desktop Battery Charger 72

P
Pauses in Memory 37
PIN Code 15
Actual code. ..... *See Data card*
Changing 41
Enable/Disable 40
Entering 15
Point to Point Short Messages 60
Preferred Operator List 31
Changing 32
Displaying 31
Programmable Audible Call Timer 44
Programming Rates 47

R
Rapid Desktop Battery Charger 72
Reading Point to Point Messages 61
Recalling Telephone Nos. from Memory 21
Recall Last Number 'Called' 33
Receiving Calls 16
Receiving Point to Point Messages 60
Replacing Battery 71
Restrict Incoming Calls 49
Restrict Keypad Dialling 48
Restrict Memory Access 49
Restrict Phone Number Length 50
Ringer On/Off 35

S

Safety Timer 76
Security Code
  Actual code. ..... *See Data Card*
  Changing 43
Short Message Service (SMS) 58
Short Message Alert Tone 63
SIM Card 12
  Inserting 13
  Problems with 13
  Unblocking 42
  Releasing 10
Speed Dial 22
Status Review 25
Storing Names into Memory 19
Storing Point to Point Messages 61
Storing Telephone Nos. into Memory 19
Switch Phone On/Off 14
  Basic Car Kit 85
  Micro Car Kit 80
System Registration 28

T

Tone Signalling Features 36

U

Ultra Saver 73
Unlock Code
  Actual Code. ..... *See Data Card*
  Changing 35

V

Visual Call Timers & Meters 45
Volume Adjust (Basic Car Kit) 85
Volume Adjust (Micro Car Kit) 81
Volume Keys 10